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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KIM, PAUL D

ART UNIT PAPER NUMBER

3729

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,121

Applicant(s)

LIEBERMAN, DANIEL

Examiner

Paul D. Kim

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 14, 15, 22-25 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 14, 15, 22-25 and 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/25/2005 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 22-25 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Re. Claim 22: The phrase "applying an etchant in an inverse pattern to said predetermined pattern to said metal layer" as recited in lines 4-5 were not described in the specification as originally filed and appear to be new matter.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Lake (US PAT. 5,987,739).

Lake teaches a process of making an antenna comprising steps of applying a metal layer on a dielectric substrate (14) and removing a portion of the metal layer to form a plurality of antennas (29, as per claim 2) by etching process as shown in Fig. 1 (see also col. 3, line 63 to col. 4, line 34).

Re. Claim 3: Lake also teaches that the plurality of antennas can be separated.

Re. Claims 7 and 8: The film shape of the substrate is made of a polymer material.

6. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Moren (US PAT. 6,281,842).

Moren teaches a process of making a device having a radiating antenna element operative a frequency band comprising steps of applying a metal layer on a dielectric substrate and removing a portion of the metal layer to form a plurality of antennas (701,

as per claim 2) by punching process (equivalent with an etching process) as shown in Fig. 7 (see also col. 3, line 7 to col. 4, line 22).

Re. Claim 3: Moren also teaches that the plurality of antennas can be separated.

Re. Claims 4-6: At least two antennas (402) of the plurality of antennas have different shapes and densities as shown in Fig. 4.

Re. Claims 7 and 8: The film of the substrate is made of a web material as shown in Figs. 3 and 4.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 7, 8, 14, 15 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horne et al. (US PAT. 5,861,226).

Horne et al. teach a method of fabricating conductive antenna elements comprising steps of: applying a metal layer (54) on a dielectric substrate (52) as shown in Figs. 15 and 16; applying an etchant to the predetermined pattern to the metal layer as shown in Figs. 16 and 17; and removing a portion of the metal layer to form an antenna element as shown in Fig. 18 (see also col. 5, lines 9-42, col. 7, lines 42-50 and col. 8, lines 11-27). In addition, Horne teaches the ion etching process. Inasmuch as Applicant's does not differentiate the type of etching employed.

Even though the conductive antenna elements of Horne et al. are used in a resonant micromesh filter, Horne et al. teach all of the limitations as set forth above. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the RF antenna by modifying or using the conductive antenna elements of Horne et al. in order to obtain a desired antenna product.

Re. Claim 2: A plurality of antenna elements are formed after removing the portion of the metal layer as shown in Fig. 18.

Re. Claims 7 and 8: The film shape of the substrate is made of a dielectric material.

Re. Claims 14 and 15: The plurality of antenna elements is formed on both side of the substrate as shown in Fig. 12.

Re. Claims 31-34: The plurality of antenna elements are formed on each side of the substrate appears to be different shape and appears to be the same thickness as shown in Fig. 12. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the plurality of antenna elements as recited in the claimed invention because Applicant has not disclosed that the antennas as recited in the claimed invention provides an advantage, is used for a particular purpose, or solves a stated problem. Therefore, it would have been an obvious matter of design choice to modify the plurality of antenna elements of Horne et al. to obtain the invention as specified in claims 32-34.

Response to Arguments

9. Applicant's arguments with respect to claims 1-8, 14, 15, 22-25 and 31-34 have been considered but are moot in view of the new ground of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Kim whose telephone number is 703-308-8356. The examiner can normally be reached on Tuesday-Friday between 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Paul D Kim
Patent Examiner
Art Unit 3729